CLAIMS

1. A method of diagnosing oncological diseases, including studying a low-concentration aqueous solution of a patient's native plasma or native blood serum by a laser correlation spectroscopy (LCS) method, characterized in that another low-concentration aqueous solution of the patient's native plasma or native blood serum is prepared, an alkali is added to one of the said solutions, and an acid is added to the other one, a probabilistic distribution density of an amplitude of fluctuations in the light diffusion intensity in the 1 – 180 Hz frequency band is determined for each solution, the distribution kernel is identified and its characteristic parameters are measured, namely, the maximum position, the intensity, the width and the diagnostic index equal to a correlation product of the said characteristic parameters, and if a value of the said diagnostic index falls out of the corresponding permissible value range taken as normal, an oncological disease or a high probability of an oncological disease is diagnosed.

2. The method according to Claim 1, characterized in that an additional diagnostic parameter is determined, the relation of the diagnostic parameters obtained when studying the said solutions being used as that additional diagnostic parameter.

3. A device for diagnosing oncological diseases, comprising a laser light source intended for illuminating a dish, a correlation detector composed of two diffused light receivers and a correlator, wherein the said diffused light receivers being arranged with the possibility of simultaneously receiving a beam of diffused, passed through the dish, light from the light source and converting light beams into electric signals, the first correlator input being connected to the output of the first receiver and the second correlator input being connected to the output of the second receiver, an analyzer intended for analyzing a correlation signal, the input of the analyzer being connected to the output of the correlator, characterized in that a delay unit, two metering units intended for metering an alkali and an acid, respectively and for their alternate arrangement in the dish are added, and the analyzer is made so as to ensure a static analysis of correlation signal amplitudes with the possibility of determining a maximum position (mF), an intensity (I), a width (dF) of the distribution density kernel of correlation signal light-diffusion intensity amplitudes for an aqueous solution of the native plasma or that of the native blood serum, the said solutions being alternatively arranged in the dish with an alkali and an acid,

respectively, and to ensure computation of the diagnostic index krG = mF x dF x I, in the said correlation detector one of the correlator inputs being connected to the output of one of the receivers through the said delay unit, which time of delay being selected so as to be longer than the correlation time of the correlation detector's own hardware noise.

4. The device according to Claim 3, characterized in that the analyzer comprises a unit for determining a distribution amplitude density and an intensity of light diffusion, a unit for determining a maximum and a maximum distribution position, a unit for determining a distribution width, a unit for determining the diagnostic criterion, a diagnostic unit, wherein the input of the unit for determining a distribution amplitude density and an intensity of light diffusion being the analyzer input, the first output of the unit for determining a distribution amplitude density and an intensity of light diffusion is connected to the input of the unit for determining a maximum and a maximum distribution position and to the first input of the unit for determining a distribution width, the first input of the unit for determining a maximum and a maximum distribution position being connected to the first input of the unit for determining the diagnostic criterion, the second input of the unit for determining a maximum and a maximum distribution position being connected to the second input of the unit for determining a distribution width, the output of the unit for determining a distribution width being connected to the second input of the unit for determining the diagnostic criterion, the second output of the unit for determining a distribution amplitude density and an intensity of light diffusion being connected to the third input of the unit for determining the diagnostic criterion, the output of the latter being connected to the input of the diagnostic unit.

5. The device according to Claim 4, characterized in that the unit for determining a distribution amplitude density and an intensity of light diffusion comprises an analog-to-digital converter, a decoder, a right-shift register, a counter of signal discrete components and a group of counters for forming a distribution amplitude density, a summing unit, a logical element of coincidence, four AND logical elements, one of them being made of a group of AND logical elements, a multiinput OR logical element, a NOT logical element, wherein the input of the analog-to-digital converter being the input of the unit for determining a distribution amplitude density and an intensity of light diffusion, the

digital output of the analog-to-digital converter being connected to the first input of the first AND logical element, and the driving output of the cycle end of the analog-to-digital converter being connected to the second input of the first AND logical element and to the second inputs of the second AND logical elements from the group of AND logical elements, the output of the first AND logical element being connected to the digital inputs of the decoder and the summing unit, each of the decoder outputs being connected, respectively, to the first inputs of the second AND logical elements from the group of AND logical elements, the third inputs of each of the group of the second AND logical elements being connected to the clock circuit, the outputs of the group of AND logical elements being connected, respectively, to the inputs of counters of the group of counters for forming a distribution amplitude density and being connected to the respective inputs of the multiinput OR logical element, which output is connected to the digital input of the counter of signal discrete components, the driving inputs of the counter of signal discrete components, of the group of counters for forming a distribution amplitude density and of the summing unit being connected to a zeroing circuit, the digital output of the counter of signal discrete components being connected to the first input of the third AND logical element, the second input of which is connected to the circuit of code for presetting an N sample size, the output of the third AND logical element being the operation terminator circuit for the unit for determining distribution amplitude density and being connected to the first input of the NOT logical element, the digital output of the summing unit being connected to the first input of the fourth AND logical element, the second inputs of the NOT logical element and the fourth AND logical element being connected to the clock circuit, the output of the NOT logical element being connected to the driving input of the analog-to-digital converter, the output of the fourth AND logical element being connected to the input of the right-shift register, the digital outputs of the group of counters for forming a distribution amplitude density being the first output of the unit for determining a distribution amplitude density and a light-diffusion intensity, and the output of the shift register being its second output.

6. The device according to Claim 4, characterized in that the unit for determining a maximum and a maximum distribution position comprises a code multiplexer, three registers, two digital-to-analog converters, a right-shift register, a comparator, a clock pulse counter, four AND logical elements, wherein the digital inputs of the code

multiplexer being the input of the unit for determining a maximum and a maximum distribution position, the zeroing circuit being connected to the first driving input of the code multiplexer, to the driving input of the clock pulse counter and to the driving input of the second register, the clock circuit being connected to the first input of the first AND logical element, the operation terminator circuit for the unit for determining distribution amplitude density and light-diffusion intensity being connected, respectively, to the second input of the first AND logical element, the output of the first AND logical element being connected to the second driving input of the code multiplexer and the input of the clock pulse counter, the output of the code multiplexer being connected to the input of the first register, the first output of which is connected to the input of the first digital-to-analog converter and the second output is connected to the first input of the second AND logical element, the output of the first digital-to-analog converter being connected to the first comparison input of the comparator, the output of which is connected to the second input of the second AND logical element and to the first input of the third AND logical element, the output of the second AND logical element being connected to the input of the second register, the first output of which is connected to the input of the second digital-to-analog converter and the second output of the second register is connected to the first input of the fourth AND logical element, the output of the second digital-to-analog converter being connected to the second reference input of the comparator, the second input of the fourth AND logical element being connected to the driving end-of-cycle output of the code multiplexer, the output of the clock pulse counter being connected to the second input of the third AND logical element, the output of which is connected to the input of the third register, the output of the fourth AND logical element being connected to the input of the right-shift register, the output of the third register being the first output of the unit for determining a maximum and a maximum distribution position, the output of the right-shift register being the second output of the unit for determining a maximum and a maximum distribution position, and the second driving output of the right-shift register being the operation terminator circuit for the unit for determining a maximum and a maximum distribution position.

7. The device according to Claim 4, characterized in that the unit for determining a distribution width comprises a code multiplexer, three registers, two digital-to-analog converters, a comparator, a clock pulse counter, three AND logical elements, wherein the

digital inputs of the code multiplexer being the first input of the unit for determining a distribution width, the zeroing circuit being connected to the first driving input of the code multiplexer, to the driving input of the clock pulse counter and to the driving input of the second register, the clock circuit being connected to the first input of the of the first AND logical element, the operation terminator circuit for the unit for determining a maximum and a maximum distribution position being connected, respectively, to the second input of the first AND logical element, the output of the first AND logical element being connected to the second driving input of the code multiplexer and to the first input of the second AND logical element, the output of the code multiplexer being connected to the input of the first register, the output of which is connected to the input of the first digital-to-analog converter, the output of which is connected to the first comparison input of the comparator, the input of the second register being the second input of the unit for determining of a distribution width, the output of the second register being connected to the input of the second digital-to-analog converter, the output of which is connected to the second reference input of the comparator, the output of the comparator being connected to the second input of the second AND logical element, the output of which is connected to the input of the clock pulse counter, the output of which is connected to the first input of the third AND logical element, the second input of the third AND logical element being connected to the driving end-of-cycle output of the code multiplexer, the output of the third AND logical element being connected to the input of the third register, the output of which is the output of the unit for determining a distribution width, and the end-of-cycle driving output of the code multiplexer being connected to the operation terminator circuit for the unit for determining a distribution width.

8. The device according to Claim 4, characterized in that the unit for determining the diagnostic criterion comprises three AND logical elements, two multipliers, a memory, wherein the first input of the first AND logical element being the third input of the unit for determining the diagnostic criterion, the first input of the second AND logical element being its first input, and the first input of the third AND logical element being its second input, the second input of the first AND logical element being connected to the operation terminator circuit for the unit for determining distribution amplitude density and light-diffusion intensity, the second input of the second AND logical element being connected to the operation terminator circuit for the unit for determining a maximum and a

maximum distribution position, the second input if the third AND logical element being connected to the operation terminator circuit for the unit for determining a distribution width, the output of the first AND logical element being connected to the first input of the first multiplier, the output of the second AND logical element being connected to the second input of the first multiplier, the output of which is connected to the first input of the second multiplier, the output of the third AND logical element being connected to the second input of the second multiplier, the output of which is connected to the input of the memory, the output of which is the output of the unit for determining the diagnostic criterion.

9. The device according to Claim 4, characterized in that the diagnostic unit comprises one zero-code coincidence logical element and three similar computing devices, each of the latter comprising a digital-to-analog converter, two comparators, a read-only memory with a digital-to-analog converter, the input of which is connected to the output of the read-only memory, an OR logical element, wherein at the input of the third computing device a divider being installed, the output of which is connected to the digital-to-analog converter of that computing device, for two computing devices the inputs of the digital-to-analog converters being the input of the diagnostic unit, and for the third computing device the input of the diagnostic unit comprising two inputs of the divider, the output of which is connected to the digital-to-analog converter of that computing device, for each of the computing devices the output of the digital-to-analog converter being connected to the first comparison input of the first comparator, the first comparison input of the first comparator being connected to the second reference input of the second comparator, the first output for a max value of the read-only memory with the digital-to-analog converter being connected to the second reference input of the first comparator, and the second output for a min value of the read-only memory with the digital-to-analog converter being connected to the first comparison input of the second comparator, the output of the first comparator being connected to the first input of the OR logical element, the output of the second comparator being connected to the second input of the OR logical element, the outputs of the OR logical elements of each of the computing devices being connected, respectively, to the first, the second and the third inputs of the zero-code coincidence logical element.